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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,347

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Fumio Kato

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EXAMINER

ARCIERO, ADAM A

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,347	Applicant(s) KATO ET AL.	
	Examiner ADAM A. ARCIERO	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period **will** apply and **will** expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply **will**, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/20/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1795

ALKALINE BATTERY

Examiner: Adam Arciero

S.N. 10/567,347

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June 4, 2009

DETAILED ACTION

1. The Applicant's request for reconsideration filed on May 26, 2009 was received.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
5. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

MPEP 2164.01(a) states "that the claimed invention be enabled so that any person skilled

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in the art can make and use the invention without undue experimentation. *In re Wands*, 858, F.2d 737, 8 USPQ2d 1404 (Fed. Cir. 1988)” (MPEP 2164.01(a)). There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is undue. Only the relevant factors will be addressed in the present claimed invention in the instant application: (a) the level of one of ordinary skill in the art; (b) the amount of direction provided by the inventor; (c) the existence of working examples; (d) the state of the prior art; (h) the quantity of experimentation needed to make or use the invention based on the content of the disclosure.

(a) The level of one of ordinary skill in the art:

The claims are drawn to an alkaline primary battery comprising a positive electrode, wherein said electrode comprises an active material of spherical nickel oxyhydroxide particles having a crystal of a beta-type structure, wherein said nickel oxyhydroxide has a half-width of a diffraction peak derived from a (001) plane of 0.6° or less and a ratio of a height of said peak to said half-width of 10,000 or more. It is unclear to the Examiner how the Applicant's obtain a material with said properties. Tables 1 and 2 show twenty-seven sample numbers for the positive active material of claim 1, but only five samples (samples 2, 3, 11, 12 and 21) meet the limitations of claim 1. It is unclear as to how this is accomplished. In order for one of ordinary skill in the art to understand the enablement of these claims, the Applicant should clearly describe how the claimed properties for the active material are obtained in relation to the samples which did not meet the

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requirements.

(b) The amount of direction provided by the Inventor:

The Applicant provides no details as to how the active material of claim 1 obtains the claimed properties.

(c) The existence of working examples:

There is only one working example provided in the specification.

(d) The state of the prior art:

The prior art does not disclose, teach, or suggest a positive active material comprising spherical beta-type nickel oxyhydroxide wherein said nickel oxyhydroxide comprises a half-width of a diffraction peak derived from a (001) plane of 0.6° or less and the ratio of a height of said peak to the half-width as being 10,000 or more.

(h) the quantity of experimentation needed to make or use the invention based on the content of the disclosure:

The Applicant provides twenty-seven samples of the same material to test, wherein only five of said samples read on the claim 1. The Applicant provides no basis for why only the five samples reach the claimed limitations and therefore one skilled in the art could not develop said active material without undue experimentation.

Therefore, based upon the above analysis, the claimed active material having the half-width of a diffraction peak derived from a (001) plane of 0.6° or less and a ratio of height of said peak to the half-width is 10,000 or more is not enabled by the present disclosure.

Claim Rejections - 35 USC § 102/103

6. The claim rejections under 35 U.S.C. 102(b)/103(a) as being anticipated by or in the alternative, obvious over YAMAMOTO et al. on claims 1-2 and 5-6 are withdrawn.
7. The claim rejections under 35 U.S.C. 103(a) as being unpatentable over YAMAMOTO et al. and HIDEO et al. on claims 3-4 are withdrawn.
8. Claims 1-2 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over of DANSUI et al. (US Patent No. 6,074,785).

As to Claims 1-2, DANSUI et al. discloses a nickel/metal hydride storage battery (alkaline battery) comprising a positive electrode made of an active material, a negative electrode comprising a hydrogen-absorbing alloy (negative active material), an alkali electrolyte and a separator (col. 4, lines 4-9). The positive electrode active material comprises spherical particles of nickel oxyhydroxide (example 1, col. 5, lines 49-55) comprising a beta-type-NiOOH structure having a diffraction peak of 2θ on a (001) plane at an angle of 15° - 19° (col. 4, lines 14-19). The mean valence of nickel at a charged state is as high as 3.5 (col. 4, lines 23-24). DANSUI et al. discloses that at a charged state, the active material of the positive electrode comprises the beta-type-NiOOH structure described above. The fully charged state of a secondary battery reads on a primary battery because a secondary battery can perform the primary function of discharging and does not require itself to be charged. DANSUI et al. teaches wherein Co and Ca are used in amounts of 2-20 atomic % and 5-10 atomic % respectively (col. 9-10, Example 3).

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DANSUI et al. does not specifically disclose the half-width of a diffraction peak P derived from a (001) plane or the ratio of height of said peak to said half-width as being 10,000 or more. However, it is the position of the Examiner that such properties of the material half-width and ratio of diffraction peak) are inherent, given that the beta-type nickel oxyhydroxide material disclosed by DANSUI et al. and the present application have the same valency and the same composition. A reference which is silent about a claimed invention's features is inherently anticipatory of the missing feature is necessarily present in that which is described in the reference. Inherency is not established by probabilities or possibilities. *In re Robertson*, 49 USPQ2d 1949 (1999). Applicant is advised to submit other information with respect to DANSUI et al. positive active material, if it is shown to be patentably distinct from the instant invention.

Alternatively, it would have been obvious to one of ordinary skill in the art to adjust the amount of cobalt and calcium added to the solid-solution of nickel oxyhydroxide because DANSUI et al. teaches that using an amount of cobalt in between 2-20 atomic % so as to effect the valence state of said cobalt will improve the discharge capacity (col. 4, lines 28-46).

As to Claims 5-6, DANSUI et al. teaches wherein said positive electrode comprises calcium oxides in an proportion of 5-10 atomic % (col. 5, lines 1-21).

9. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over DANSUI et al. (US 6,074,785) as applied to claims 1-2 and 5-6 above, and further in view of TANIGAWA et al. (US 2002/0024041 A1).

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As to Claims 3-4, DANSUI et al. does not expressly disclose wherein the spherical nickel oxyhydroxide carries a cobalt oxide and the cobalt contained in said cobalt oxide has a mean valence of greater than 3, and wherein said cobalt oxide is in the amount of 0.5-15 parts by weight per 100 parts of weight of said spherical nickel oxyhydroxide.

However, TANIGAWA et al. teaches of a positive active material containing nickel oxyhydroxide solid solution further comprising a cobalt oxide wherein the oxidation number of cobalt is 3.19 (pg. 5-6, [0082]-[0087]). At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the cobalt in the active material of DANSUI et al. so that said cobalt has an oxidation number of greater than 3, because TANIGAWA et al. teaches that a high-capacity battery exhibiting high discharge properties and a high capacity maintenance rate can be obtained (pg. 8, [0134]).

Response to Arguments

10. Applicant's arguments, see pg. 2-6, filed May 26, 2009, with respect to the rejection(s) of claim(s) 1-6 under 35 U.S.C. 102(b)/103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art references.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADAM A. ARCIERO whose telephone number is

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(571)270-5116. The examiner can normally be reached on Monday to Friday 8am to 5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on 571-272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AA

/Dah-Wei D. Yuan/
Supervisory Patent Examiner, Art Unit 1795